What is claimed is:

1. A photomask structure for reducing lens aberration and pattern displacement, comprising:

a transparent substrate; and

a light-shielding layer, disposed on the transparent substrate and having an array pattern area and a plurality of assist patterns, wherein the distance between the assist pattern and its upper and lower array patterns is equal and the length of the assist pattern is equal to the width of the array pattern.

2. The method as claimed in claim 1, wherein the transparent substrate is a quartz substrate.

3. The method as claimed in claim 1, wherein the transparent substrate is a calcium fluoride substrate.

4. The method as claimed in claim 1, wherein the light-shielding layer is chromium.

5. The method as claimed in claim 1, wherein the thickness of the light-shielding layer is about 150~200nm.

6. The method as claimed in claim 1, wherein the width of the assist pattern is about 60~80nm.

7. A method of reducing lens aberration and pattern displacement, comprising:

providing a substrate with a photoresist layer thereon;

defining the photoresist layer by a photomask, wherein the photomask has an array pattern area and a plurality of assist patterns and the distance between the assist pattern and its upper and lower array patterns is equal, further the length of the assist pattern is equal to the width of the array pattern; and

etching an array trench area in the substrate using the patterned photoresist layer as a mask.

8. The method as claimed in claim 7, wherein the substrate is a silicon substrate.

9. The method as claimed in claim 7, wherein the width of the assist pattern is about 60~80nm.

10. The method as claimed in claim 7, wherein no additional patterns are formed in the photoresist layer after the pattern is defined.

11. The method as claimed in claim 7, after etching, reducing the CD bias between array patterns to 40%~60%.

12 The method as claimed in claim 7, after etching, reducing pattern displacement to 40%~80.